



KONGU ENGINEERING COLLEGE
(AUTONOMOUS INSTITUTION AFFILIATED TO ANNA UNIVERSITY-COIMBATORE)



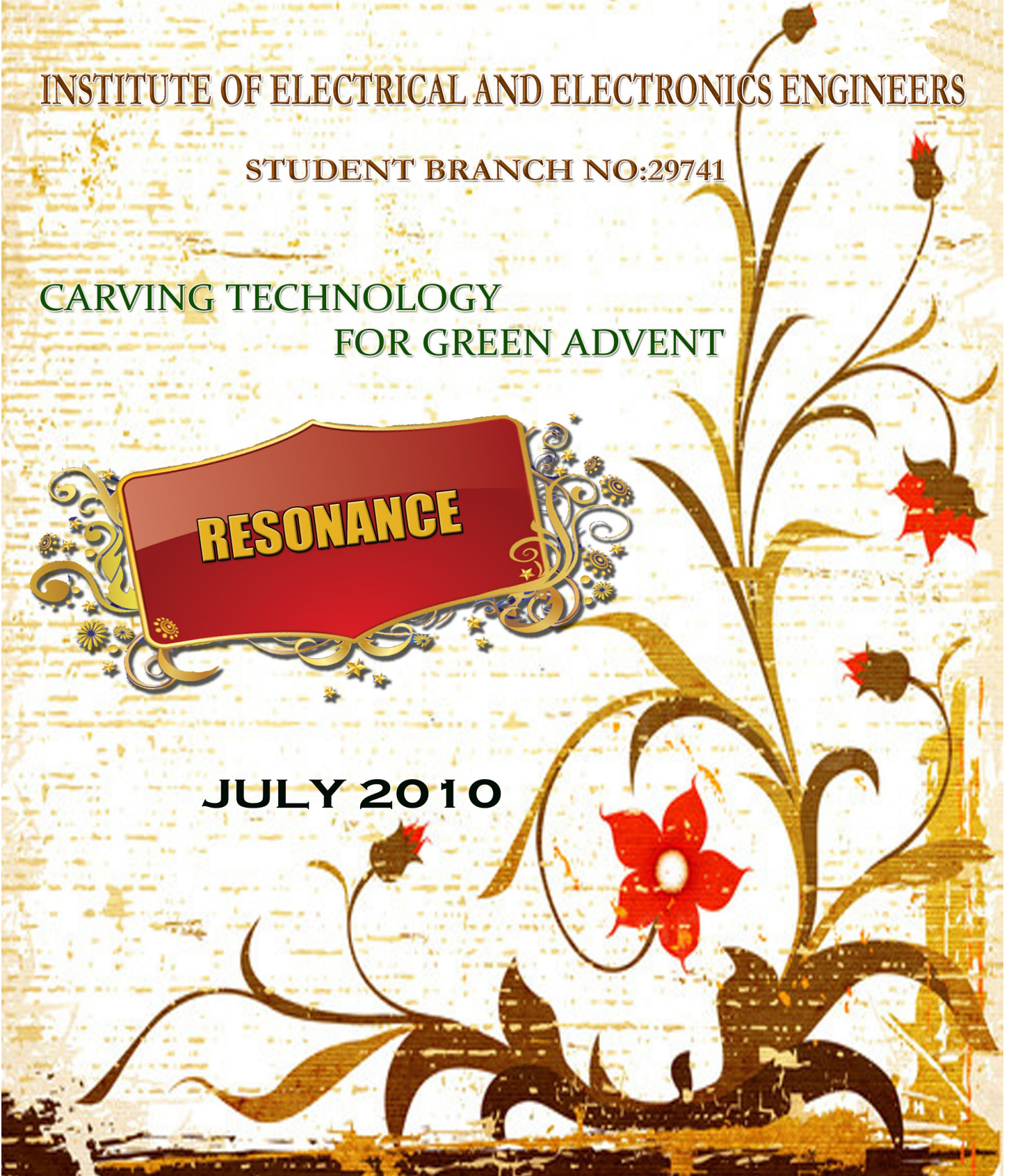
INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

STUDENT BRANCH NO:29741

**CARVING TECHNOLOGY
FOR GREEN ADVENT**

RESONANCE

JULY 2010



I E E E

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Inside this issue

Staff 's Desk 2
Principal's Desk 3
Achievements 4
Tech Feast 5
Tech of the Month 8
Year Plan 9
Inaugural Report 10
TAP Report 12

FROM THE EDITORS:

We are very happy to present you this nutshell– *IEEE RESONANCE*. This newsletter aims at highlighting the innovation in the technologies. It is also a mélange of interesting technical articles ranging from classical poems, tech feast to the upcoming activities of our association. We hope you enjoy reading the distinctive pieces of writings penned down by your fellow students and friends.

We cordially invite you to keep in touch with our activities throughout the year.

Happy Reading!



FROM STAFF'S DESK

Prof. K.NARAYANAN
Chief Coordinator, IIPC



It is with great pleasure, I write this message for the newsletter to be web-published by the IEEE student branch of Kongu Engineering College. KEC student branch of IEEE (with nearly 500 members) has been an active and vibrant branch making its presence felt both inside KEC as well as in the Madras section of IEEE. The branch has been regularly conducting useful programmes and reporting the same to the IEEE Madras section. The uniqueness of the IEEE branch has been its voluntary nature and its ability to conduct programmes very smoothly fully organized by students from different disciplines.

The newsletter is the newest venture of this branch. It is hoped that all student members of IEEE and also non-members will contribute for this newsletter by which they are heard throughout the cyber world.

Wishing a happy time for the voluntary editors of IEEE Resonance and the student members.

Modern technology owes ecology an apology

FROM PRINCIPAL'S DESK

Prof. S. KUPPUSWAMI
Principal, Kongu Engineering College



As the branch counselor of IEEE Student Branch, Kongu Engineering College, it is my pleasure to mention that the strength of IEEE has grown from 350 to 500 this year. I am also happy that the inaugural function of IEEE student Branch and affinity group WIE has been a great success. I wish the new office bearers (this academic year) all success.

The Technical Awareness Program (TAP) conducted by the students of the branch, at a school in Thalavaipettai, Bhavani was an eye opener for the rural students.

The first newsletter of the branch "IEEE Resonance" is a platform for young vibrant engineers to exhibit their technical views. I wish the readers of IEEE Resonance make the most use of the magazine.

I hope the members of IEEE student Branch utilize their membership to the fullest and participate in the activities organized by the branch.

Failure is success if we learn from it

ACHIEVEMENTS

IEEE student branch has been selected as the recipient of “2008 MGA student branch membership growth” award for region 10.

A two-day IEEE Madras GINI Leadership programme on 19th & 20th September 2009 in our College, by inviting GINI Hub leaders and principal officers of Student Branches. The primary objective of this two-day programme, is to train the IEEE team leaders in public speaking including leadership, for membership development and activities and to know their problems, share information and experience and give suggestions to make the Student Branches, strong and active.

IEEE student branch of Kongu Engineering College conducted a National Level Technical Symposium, **AVANZARE'10** on 19th and 20th March 2010. Avanzare '10 bears in itself the meaning 'progress', was a hang-on package of talents, enthusiasm, knowledge, innovation and fun. An official website was uploaded - <http://avanzare.kongu.edu>, with online registration options. We received tremendous response through the website. Participants from colleges from all over India actively participated in various events



Goals help you channel your energy into actions

TECH FEAST

ABC'S OF GREEN TECHNOLOGY

Green technology stresses the need for innovations in and alternatives to energy production as well as changes in the lifestyle.

A for:-

- Alternatives to fossil fuel or chemical intensive agriculture that cause damage health and the environment
- Application of green chemistry and green engineering principles to industry and daily life.
- Alternative fuels and renewable means for generating energy and going for energy efficiency innovations

B for:-

- Basing the economic activity around technologies and products that benefit the environment, speeding their implementation and creating new careers that truly protect the planet
- Building construction that encompasses everything from the choice of building materials to where a building is located
- Bringing about energy efficiency in the existing systems

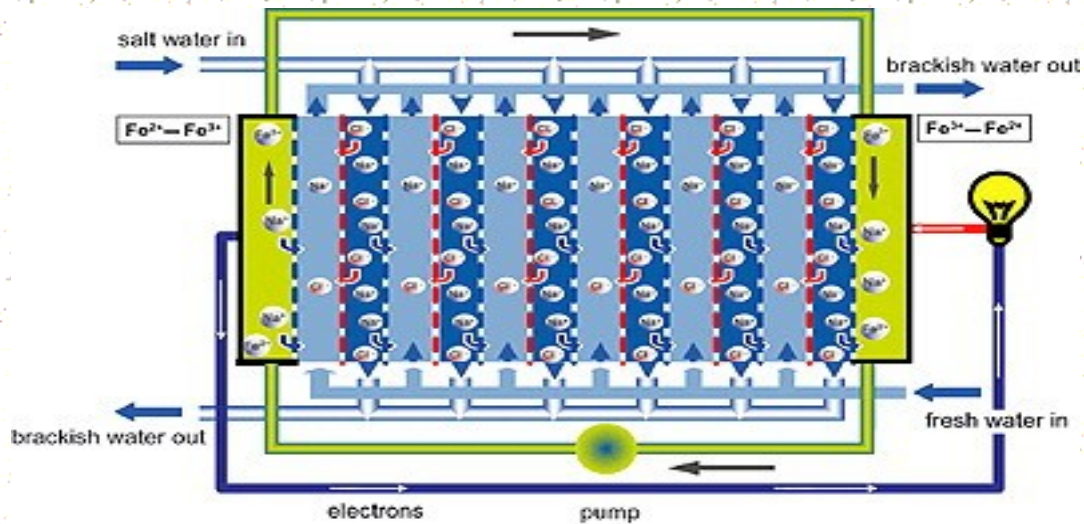
C for:-

- Continuing indefinitely into the future without damaging or depleting natural resources
- "Cradle to cradle" design adoption and ending the "cradle to grave" cycle of manufactured products, by creating products that can be fully reclaimed or re-used.
- Chemical products and processes being used to reduce or to eliminate the use and generation of hazardous substances.

— SHOBHIT B. DESAI
FINAL EIE

All are knowledge has its origins in our perceptions

BLUE ENERGY



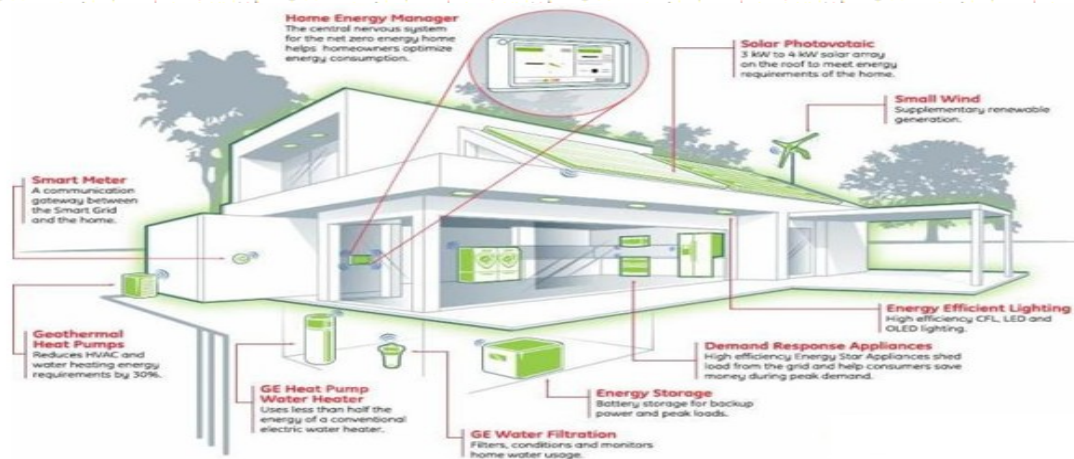
If there is a solution on one side, and pure water on the other, there will be a higher concentration of water molecules on the pure water side of the membrane. Therefore, water molecules pass through the membrane from the pure water side toward the solution side more frequently than from the solution side going to the pure water side. This will result in a net flow of water to the side with the solution. Assuming the membrane does not break, this net flow will slow and finally stop as the pressure on the solution side becomes such that the movement in each direction is equal: dynamic equilibrium. This could either be due to the water potential on both sides of the membrane being the same, or due to osmosis being inhibited by factors such as pressure potential or osmotic pressure.

Due to high concentration on one side this membrane is like a one-way valve, which draws the 'dilute' fresh water through it into the 'concentrate' of salt-water. This increases the pressure in the salt-water chamber, and this resulting pressure can be used to drive a turbine, thereby generating electricity. The only waste product is 'brackish' (slightly salty) water, which flows back into the sea. Statkraft, [a Norwegian power company] have estimated that salinity power could eventually provide around 10 per cent of the Norway's electricity needs, or in other words, around 12 terawatt-hours of electricity per year.

—G.DINESH
III BE EEE-A

The awareness of our own strength makes us modest

NET ZERO ENERGY BUILDINGS

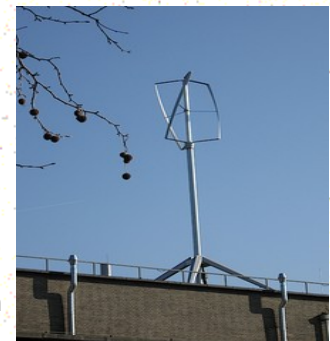


Skeptics may scream "science fiction," but the idea of buildings producing as much energy as they use each year is an idea whose time is nearing. In fact, experts say, net-zero energy buildings is the next big movement in green design. They are the embodiment of sustainability because net-zero energy is a model that is self-contained, no outside resources are required. Today, green buildings, especially LEED-certified ones, are still viewed by many as cutting edge.

— V.KIRUTHIKA
III EEE 'B'

TURBY WIND TURBINE

The three vertical aerofoil blades have a helical twist of 60 degrees. Turby is able to utilize wind from any direction, including wind not entering perpendicular to the axis but for instance passing at an upward angle as is the case when passing over a building and convert that energy with an even higher efficiency into electricity. No other turbines have been found in the literatures that are equably suited to utilize the ever-changing wind within city limits. Constantly shifting winds, a serious problem for the normal wind turbines, are an extra stimulant for Turby.



— PRAISY EVALIN
III CSE 'B'

Human have become the tools of their tools

TECH OF THE MONTH

OLIVE PAD 3G ANDROID TABLET

FEATURES

- 7 Inch Capacitive Touchscreen
- Android OS
- 3 Megapixel Autofocus camera – upto 4x zoom
- Smartphone features for voice and video calling
- Wi-Fi b/g
- Bluetooth 2.1
- 3.5G HSUPA
- GPS
- Flash support
- Mini USB Port
- G-sensor, Light sensor
- Dual speakers



HARDWARE :

- 600 MHz Qualcomm M7227 processor
- 512 ROM
- 512 RAM
- Expandable memory upto 32GB

PRICE : INR 20,000 – 25,000

RELEASE DATE : August, 2010

— G.ABIRAMI
II EIE 'A'

The time I kill is killing me

YEAR PLAN

The activities of IEEE & WIE for the year 2010-11 started with the inaugural function on July 3rd. The chief guest for the inaugural was Dr.P.Suresh Chandra Pal, Chairman, Student Activities ,IEEE Madras Section. Following the inaugural was the TAP (Technology Awareness Program) which was held in Government Vinobha Higher Secondary School, Thalaivaipettai, Bhavani, on July 14th. After TAP there is a guest lecture by Mr.R.Mahadevan on "Recent Trends in Mobile Computing".

The student programs Ferret, Spave, Electrowar, Intuite, Gyandyan follow the guest lecture. These programs aim at providing the student members platform for showcasing their technical and non-technical talents.

There are a number of other guest lectures between the student programs for the benefit of the students thus equipping them with the latest happenings.

Avanzare, the two day National Level Technical Symposium is to be held for the IEEE members from across the country. This symposium is aimed at conducting competitions like paper presentation , idea presentation, C-debugging and much more. Apart from these we have a workshop on the latest trends for all the participants.

To mark the end of the activities for the academic year, we have the valedictory function.

This year we are privileged to release for the first time the newsletter of the branch, IEEE Resonance and the website.(www.ieeekec.org)

We hope that the members of the IEEE Student Branch avail the benefits of being a member and make the most use of it.

Life is what happens to you while you are busy making other plans

IEEE INAUGURAL

CONDUCTED ON - 03/07/2010

GUEST OF THE DAY:

Dr.P.Suresh Chander Pal B.E.,Ph.D.,F.I.E.(Ind),SMIEEE(USA),FIV.FIETE.,
C.Eng (Ind), M.I.P.A.,
Chairman, Student Activities Committee, IEEE Madras Section
Executive Vice-Chair, IEEE India Council &
Vice Chairman, IEEE Power & Energy Society, Madras Chapter.

The inaugural function of the IEEE Student Branch along with the WIE affinity group of Kongu Engineering College was organized on 3rd July 2010. The function began with prayer song at 10 am. Prof.Narayanan-staff co coordinator of IEEE welcomed the gathering. In his address, he invited the students to actively participate in the events of the forum. He proudly mentioned that the KEC IEEE student branch has immense growth in its membership from 350 to around 500 this year. Mrs.V.R,Saraswathy, Staff co-coordinator introduced the office bearers for the year 2010-2011. She also announced the launch of IEEE Magazine "IEEE RESONANCE" The Year Plan of IEEE and WIE was presented by Mr.Narendar, Chairman of IEEE and Shruthi Sakthi, Chairperson of WIE. Prof.S.Kuppuswami, Principal, KEC and Branch Counselor IEEE KEC presided over the function. He congratulated IEEE student branch for an overwhelmed growth rate in membership. He pointed out the importance of practical insights for developing the innovative ideas into worthy products. Dr.P.Suresh Chander Pal in his Chief Guest address, gave an overview of IEEE. He appreciated the students for their active participation and enthusiasm for organizing various events of IEEE and to make them a grand success. He threw light on the contributions made by the Engineers in the field of medicine like Tongue driven system etc. He underlined the importance of professional ethics and the need for commitment to ethical values among young engineers. He suggested the students to indulge in social activities and spread awareness for the upliftment of women in the field of engineering. He also suggested to organize video conference with professionals in and around the world. To express the gratitude, Prof.K.Narayanan presented the memento to Dr.P.Suresh Chander Pal. The vote of thanks was proposed by Mr.G.Vinodh, Treasurer of IEEE. The function came to an end by extending gratitude to the motherland through the National Anthem.

Excellence is not a skill. It is an attitude



TECHNICAL AWARENESS PROGRAM

CONDUCTED ON - 03/07/2010

The WIE affinity group of IEEE student branch of Kongu Engineering College takes active participation in various group activities. One among those group activities includes the Training Program for school students in rural areas. The training program was scheduled on **14th July 2010** for the **Government Vinoba Higher Secondary School, Thalavaipettai, Bhavani**. The program initiated at 11 am with the introduction regarding the objective of the event. The targeted students were of the 11th standard. We had around 200 students totally. The training was mainly based on the educational stream. The students were made aware about their future and the courses of study that they could choose after their school education. Awareness was provided about various branches of engineering such as Computer Science and Engineering. Basic Knowledge is also an important factor that helps the students to understand anything easily. So, the students of IEEE, KEC took time to share details regarding the Basic Computer architecture, 3-G Services. Lap-Top Computers, Flash Memory, CDs, Floppies were demonstrated lively. Videos and presentations were displayed for the students to kindle their interest in Engineering and the benefits of being an engineer. After the lunch break, **Photo sink** event was conducted for the students. It was a technical event for identifying technological stuff and knowing about them. It was followed by **Situation Handling** event which focused on enhancing the "**Crisis management**" skills of the students. The participants from IEEE\KEC also imparted basic facts to the children. They were also made to understand the importance of keeping themselves updated regarding the growing technology. Most important of all, the students were encouraged to interact and clear their doubts regarding Higher studies and Engineering. Prizes were distributed to students who were active during the session, who put forward queries and to those who answered the questions. Thus TAP provided an excellent platform for the rural students to inculcate awareness on technical grounds.

Education progressive discovery of our own ignorance

